IV. Other Considerations

(a) Should the Commission authorize the applicants to provide service within the entire area designated in the application?

In accordance with the parties' stipulation, the Commission authorizes the applicants in all three dockets to provide service within the entire geographic areas designated in their respective applications.

(b) If the application is approved, under what circumstances may the applicants deny service to a potential customer within the competitive zone?

It is unnecessary to regulate the conditions under which the entrants may deny service to potential customers. It would be unreasonable to require that new entrants serve all customers, business and residential, within a given geographic area until such time as their networks are in place. Once their networks are developed, the AECs should have no incentive to refuse service to any customer. If denial of service by AECs creates a problem in the future, the Commission has statutory authority to impose conditions on the AECs and could impose conditions similar to those under which the LECs operate.

(c) Should the Commission impose requirements on the applicants in addition to those in OAR 860, Chapter 32?

Consumer protection measures are critical when captive ratepayers are forced to use monopoly service providers. The presence of alternatives helps protect consumer interests. Requirements in addition to those in OAR 860, Chapter 32 are thus unnecessary at this time. Once competition is established, we will consider whether consumer protection requirements imposed on LECs should be relaxed.

(d) Should the applicants be subject to the Oregon Customer Access Plan?

(1) If so, what conditions or procedures are necessary to facilitate compliance with the Plan?

Under the Partial Stipulation, the applicants will contribute to the Oregon Customer Access Fund. AECs will also have to comply with the 1994 Oregon Customer Access Plan, Parts V.D, VI.C, IX.D, and XI.F. AECs should not participate in pooling arrangements.

(e) What ancillary services should the applicants be required to provide?

(1) How will the applicants supply such services?

(2): What ancillary services, features, and functions should the LECs be required to make available to the applicants?

The only ancillary service the AECs must provide is E-911 service. Public health and safety concerns justify that requirement. We expect, however, that the AECs

will also offer other ancillary services because their customers will demand them. We prefer to let the market dictate what services AECs offer. Applicants will supply ancillary services with their own equipment or through arrangements with the LECs.

The Commission can consider on a case by case basis relaxing the consumer protection and service requirements imposed on the LECs. Until competition has become established, however, we will not consider lifting the ancillary service requirements on the LECs.

Issue IV(e)(2) was resolved by stipulation. The LECs agree to treat the AECs as they treat independent local exchange carriers (ILECs) for purposes of making ancillary services available. The resolution of this issue is consistent with our decision that AECs should have cocarrier status with other local exchange service providers. Throughout this order, we have mandated treatment for the AECs that is analogous to the treatment the ILECs receive from the LECs.

(f) What intercompany compensation arrangements are needed for calls placed within an exchange and calls placed between exchanges within the competitive zone?

The Commission finds that compensation arrangements for the exchange of local and Extended Area Service (EAS) traffic should be based on bill and keep arrangements for an period of not more than 24 months. We are persuaded that bill and keep has fewer shortcomings than other compensation proposals in this case and will function as a reasonable compensation mechanism during the initial stages of competitive entry into the local exchange market. At the same time, we recognize that bill and keep is only a temporary means of accommodating local exchange competition and that a more permanent intercarrier compensation mechanism must be developed as competition progresses.

We order a work group to study intercompany compensation issues and to formulate proposals for implementing a reciprocal interconnection rate structure applicable to all switched telecommunications traffic. The interconnection compensation work group shall consist of representatives from USWC, GTE, Staff, MFS, ELI, MCImetro, and other interested parties, including consumer groups, ILECs, IXCs, and other competitive providers. Staff shall submit a report to the Commission every six months detailing the progress of the work group. In addition, applicants, USWC and GTE shall conduct and submit traffic studies of local and EAS traffic exchanged with other carriers. The first study shall be submitted within six months from the date of this order. Additional traffic studies shall be submitted every six months thereafter. This information can be used by the work group to develop its recommendations regarding reciprocal compensation arrangements for terminating traffic.

(1) What arrangements are necessary to accommodate existing Extended Area Service routes?

Because we have decided to adopt bill and keep as the form of intercompany compensation for local traffic, it would create an anomaly to impose a different form of compensation on the AECs within the EAS region. Also, there is no cost justification for treating incumbent LECs and AECs differently for EAS purposes. Current EAS routes are established based on criteria that consider community calling areas of interest. In the case of AECs, calls between exchanges reflect end users' calling areas of interest between two neighboring exchanges just as if calls were handled by the incumbent LECs. The identity of the companies involved is irrelevant. The proposal to treat LECs and AECs differently within the EAS region would severely disadvantage the new entrants and hamper competition.

Until otherwise ordered by the Commission, existing local exchange boundaries and EAS routes shall apply to AECs as well as incumbents for the purpose of distinguishing between local and toll calling and for intercompany compensation. Thus, traffic originated by any authorized local carrier that crosses exchange boundaries within the Portland EAS region shall be treated as a local call and compensated on a bill and keep basis.

(g) Is the applicants' proposed service compatible with the existing network configuration and other requirements associated with providing enhanced 911 (E-911) service?

The AECs' proposed service will be compatible with the existing network configuration and other requirements associated with providing E-911 service. The AECs have primary responsibility to work with the E-911 agencies to make certain that all users of their services have access to the emergency system.

(h) What interconnection arrangements between the applicants and the LECs should be provided?

(1) What should be the conditions of such arrangements?

(2) What technical issues must be resolved?

Physical interconnection. The Commission finds that the applicants should be permitted to interconnect with incumbent providers on the same terms and conditions that LECs have used to interconnect their telecommunications networks. This process contemplates that the interconnecting parties will negotiate mutually acceptable locations where network facilities can be joined. We find that the parties will bargain on more equal terms and have a greater incentive to agree upon the most efficient interconnection if all costs associated with the construction of facilities are shared equally.

The Commission declines to adopt recommendations that would give either the LECs or the AECs the power to unilaterally designate interconnection meet points. In a competitive environment, carriers should not have an opportunity to select interconnection locations that may disadvantage competing providers. The applicants shall not take any action that impairs the ability of the incumbent LECs to meet the service standards specified by the Commission.

Where parties are unable to agree on mutually acceptable interconnection arrangements, the Commission should be notified within three days so the dispute can be resolved on an expedited basis.

The applicants have indicated that they intend to abide by existing protocols and procedures and install equipment that complies with network standards. We therefore have no reason to believe that technical problems will occur.

Unbundling and Resale. These issues will be addressed in docket UM 351. An order is expected shortly in that docket.

(i) What arrangements are necessary for the assignment of telephone numbers to the applicants?

The AECs cannot compete in the local exchange market unless they have nondiscriminatory access to telephone number. Competitive entrants are entitled to receive central office code assignments according to the same rates, terms, and conditions as any LEC. Guidelines for the assignment of numbers are in place. USWC, as the Numbering Plan Administrator, shall apply these guidelines in a nondiscriminatory manner.

ORDER NO. 96-021

ENTERED JAN 12 1996

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

CP 1, CP 14, CP 15

In the Matter of the Application of Electric Lightwave, Inc. for a Certificate of Authority to Provide Telecommunications Services in Oregon. (CP 1)	)	
In the Matter of the Application of MFS Intelenet of Oregon, Inc. for a Certificate of Authority to Provide Telecommunications Services in Oregon and Classification as a Competitive Telecommunications Provider. (CP 14)	)	ORDER
In the Matter of the Application of MCI Metro Access Transmission Services, Inc. for a Certificate of Authority to Provide Telecommunications Services in Oregon and Classification as a Competitive Telecommunications Provider. (CP 15)	)	

DISPOSITION: APPLICATIONS GRANTED

The Applications

Docket CP 1: Electric Lightwave, Inc. On November 14, 1994, Electric Lightwave, Inc. (ELI) filed an application with the Commission for certification to provide telecommunications service in Oregon as a competitive provider. ELI seeks authority to provide intraexchange switched service in areas coextensive with the Lake Oswego, Milwaukie, Oak Grove, Oregon City, and Portland local exchanges of

(j) What arrangements are necessary to ensure adequate number portability?

Number portability is essential to the development of effective local exchange competition. It is therefore important for the telecommunications industry to produce a database solution as soon as possible. At the same time, the Commission does not want to duplicate efforts now underway to arrive at a national solution to portability issues. A work group is established to monitor developments in this area, including the results of database number portability trials in other states. The work group shall submit periodic reports evaluating the progress of database portability trials and include recommendations regarding the timing and implementation of a database number portability solution. The first report shall be filed with the Commission no later than July 1, 1996.

Interim number portability shall be offered by allowing AECs to use remote call forwarding or directory number route indexing technology. The evidence indicates that these methods have technical limitations, but there appears to be general agreement that they will function reasonably well as an interim solution. USWC and GTE shall file tariffs within 30 days from the date of this order offering both the remote call forwarding and directory number route indexing functions at a price equal to total service long run incremental cost. The tariffs may include a nonrecurring service provisioning charge, which should also be set at cost.

(k) If the application is granted, should the Commission impose any limits on LEC pricing flexibility?

LECs should be afforded pricing flexibility under ORS 759.050(5) once (a) the applicants have received certificates of authority to provide local exchange service consistent with the terms of this order; (b) the Commission approves the tariffs filed by USWC and GTE in compliance with this order; *and* (c) USWC and GTE certify that interconnection arrangements are in place and a mutual exchange of traffic exists with an authorized AEC. These conditions will ensure that a competitive alternative is present at the time LECs receive the pricing flexibility contemplated by ORS 759.050. We also find that the pricing flexibility authorized in USWC's Alternative Form of Regulation plan should not be restricted in this proceeding.

U S WEST Communications, Inc. (USWC), and the Beaverton, Gresham, Hillsboro, Sherwood, Stafford, and Tigard local exchanges of GTE Northwest, Incorporated. (GTE).

Docket CP 14: MFS Intelenet of Oregon, Inc. On December 14, 1994, MFS Intelenet of Oregon, Inc. (MFS), filed an application with the Commission for certification to provide telecommunications service in Oregon as a competitive provider. MFS seeks authority to provide intraexchange switched services in areas coextensive with the Burlington, Lake Oswego, Milwaukie, North Plains, Oak Grove, Oregon City, and Portland (local exchanges of USWC, and the Beaverton, Forest Grove, Gresham, Hillsboro, Scholls, Sherwood, Stafford, and Tigard local exchanges of GTE.

Docket CP 15: MCI Metro Access Transmission Services, Inc. On December 20, 1994, MCImetro Access Transmission Services, Inc. (MCImetro) applied for authority to provide telecommunications service in Oregon as a competitive provider. MCImetro seeks to provide intraexchange switched telecommunications services in the Portland metropolitan area, including portions of Multnomah, Clackamas, and Washington counties. Service will be provided in areas coextensive with the Lake Oswego, Milwaukie, Oak Grove, Oregon City, Portland exchanges of USWC, and the Beaverton, Forest Grove, Gresham, Hillsboro, Scholls, Sherwood, and Stafford local exchanges of GTE.

The applications are described more fully in Appendix A.

Procedural Background

On January 26, 1995, dockets CP 1, CP 14, and CP 15 were consolidated for purposes of hearing and decision. Protests to the applications were filed by USWC, GTE, Oregon Cable Telecommunications Association (OCTA), Oregon Exchange Carriers Association (OECA), Oregon Independent Telephone Association (OITA), PTI Communications Inc. (PTI), Teleport Communications Group, Inc. (TCG), and Mr. R. Rose. Petitions to intervene were filed by AT&T Communications of the Pacific Northwest, Inc. (AT&T), McCaw Cellular Communications, Inc. (McCaw), MCI Telecommunications Corporation (MCI), Sprint Communications Company L.P. (Sprint), United Telephone Company of the Northwest (United), OCTA, and PTI. The Citizens' Utility Board (CUB) filed a notice of intervention. All petitions to intervene were granted.

On July 10-15, 1995, an evidentiary hearing was held in these matters in Salem, Oregon, before Samuel J. Petrillo and Ruth Crowley, Administrative Law Judges. Appearances were entered on behalf of ELI, MFS, MCImetro, GTE, USWC, AT&T, OCTA, OECA, OITA, Sprint, TCG, and the Commission Staff. Party representatives are listed in Appendix B.

On August 18, 1995, the parties submitted simultaneous briefs and the record was closed.

Statutory Basis

The telecommunications policy goals established by the Oregon Legislature and administered by the Commission are found in ORS 759.015. That statute provides:

> The Legislative Assembly finds and declares that it is the goal of the State of Oregon to secure and maintain high-quality universal telecommunications service at just and reasonable rates for all classes of customers and to encourage innovation within the industry by a balanced program of regulation and competition. The commission shall administer the statutes with respect to telecommunications rates and services in accordance with this policy.

These applications to provide local exchange telecommunications services are filed pursuant to ORS 759.050, the "competitive zone law." Under ORS 759.050(2)(a), the Commission may:

> certify one or more persons, including another telecommunications utility, to provide local exchange telecommunications service within the local exchange telecommunications service area of a certified telecommunications utility, if the commission determines that such authorization would be in the public interest. For the purpose of determining whether such authorization would be in the public interest, the commission shall consider:
>
> (A) The effect on rates for local exchange telecommunications service customers both within and outside the competitive zone.
>
> (B) The effect on competition in the local exchange telecommunications service area.
>
> (C) The effect on access by customers to high quality innovative telecommunications service in the local exchange telecommunications service area.
>
> (D) Any other facts the commission considers relevant.

Under ORS 759.050(2)(c), the Commission may establish reasonable conditions or restrictions on the certificates of telecommunications providers to provide local exchange service. Conditions may be imposed by the Commission at the time of issuance or thereafter.

Stipulations

The parties in these proceedings engaged in a number of settlement conferences, which resulted in the submission of a Stipulation and a Partial Stipulation. These documents are attached to this order as Appendices C and D.

The **Stipulation** addresses Issue IV(e)(2), regarding ancillary services, features, and functions that the local exchange carriers (LECs) should be required to make available to the applicants. Under the terms of this document, GTE and USWC agree to offer a number of ancillary services to the applicants on a nondiscriminatory basis and on the same terms and conditions, other than price, that are offered to other LECs in Oregon:

- White Pages Custom and Customer listings.
- Directory Assistance.
- IntraLATA Directory Assistance Operator Service.
- 911 service. LECs and the applicants will negotiate in good faith regarding the use of LEC standard procedures, obligations, arrangements, and delivery of 911 calls originated by the applicants' customers.
- Access to Centralized Message Distribution System for facilitating collect and third party billing.
- Operator Assistance Services, including Busy Line Verification/Interrupt.
- Mutual Repair Referral.

In addition to the above, the Stipulation provides that GTE will offer the applicants and their customers with Yellow Pages advertising, basic Yellow Pages listings, White Pages information listings, and directory distribution in GTE directories on a nondiscriminatory basis and on the same terms and conditions, other than price, as it offers to other LECs in Oregon.

The Stipulation also provides that the applicants may request Commission relief to obtain ancillary services not listed above, and that USWC and GTE may oppose such requests. The signatories to the Stipulation are AT&T, ELI, GTE, MFS, OCTA, OECA, Sprint, TCG, and USWC. OITA does not oppose the Stipulation.

The **Partial Stipulation** is separated into five different Items, each of which has been agreed to by different parties.

Item 1 of the Partial Stipulation is an agreement that it is in the public interest to grant the applications and to designate the exchanges listed in the applications as competitive zones. The signatories are ELI, MFS, AT&T, Sprint, TCG, OCTA, and OECA. OITA and USWC are not opposed.

Item 2 addresses Issue IV(a). ELI, MFS, AT&T, Sprint, TCG, OCTA, OECA, GTE and USWC agree that the applicants in all three dockets should be authorized to provide service within the entire geographic areas designated in their respective applications. They also agree that the Commission should acknowledge the concerns of USWC and GTE that LECs and alternative exchange carriers (AECs) do not have an equal obligation to serve customers. OITA is not opposed.

Item 3 deals with Issue IV(d). It first provides that ELI, MFS, and the LECs will terminate all intrastate traffic originating on one another's network. The signatories to this agreement are ELI, MFS, AT&T, Sprint, TCG, OCTA, GTE, and USWC. OITA and OECA are unopposed.

In addition, ELI, MFS, AT&T, Sprint, TCG, OECA, GTE, USWC agree to contribute to the Oregon Customer Access Fund (OCAF) and to comply with specific provisions of the Oregon Customer Access Plan (OCAP). Where an AEC terminates long distance traffic directly or indirectly from interexchange carriers (IXCs) or from its own toll network to its own end office and end user customers, the AEC will charge an OCAF and Oregon Universal Service Fund (OUSF) rate element, in addition to switched access charges, on all intrastate terminating carrier common line access minutes or their equivalent. The revenues collected from the OCAF and OUSF charges paid by AECs will be turned over to OECA for OCAF pool distribution. The agreement is intended to coincide with Order No. 93-1133, which funds OCAF and OUSF by a cents per minute charge on all intrastate terminating rated CCL switched access minutes.

The signatories indicated above also agree that the AECs, as contributors to OCAF, shall comply with OECA's informational and operational needs. Specifically, the AECs will comply with Parts V.D, VI.C, IX.D, and XI.F of the 1994 OCAP. AECs will not participate in the OCAF/OUSF pooling arrangements because of the extensive regulatory oversight that would be required.

Item 4 of the partial stipulation deals with Issue IV(j). ELI, MFS, AT&T, Sprint, OCTA, TCG, OECA, and GTE propose that the Commission open a docket no later than January 31, 1996, to consider and resolve the issue of permanent number portability. In the meantime, the applicants, OECA, USWC, and GTE and other interested parties shall develop a work group to evaluate the results of number portability trials in other states. OITA is not opposed to this agreement.

Item 5 was signed by ELI, MFS, Sprint, AT&T, OCTA, TCG, GTE, and USWC. These parties recommend that the following issues should be addressed in other Commission dockets:

- Issues relating to network access channel unbundling and line side interconnection should be considered in docket UM 351;

- Virtual and physical collocation issues should be considered in dockets UT 119 and UM 351;
- Universal service issues should be considered in docket UM 731.

Disposition of Stipulations

The Commission has reviewed the stipulations in light of the record in this case. We adopt the Stipulation in its entirety. That agreement resolves Issue IV(e)(2) regarding the ancillary services the LECs will offer to the AECs.

The Commission also adopts Items 2, 3, and 5 of the Partial Stipulation, thereby resolving Issue IV(a) relating to the geographic scope of the applications, and Issue IV(d) relating to OCAF/OCAP issues. We do not adopt Item 1 because it relates to the public interest determination required by ORS 759.050(2)(a), and must be decided based on the record in this case. We adopt Item 4 in part. Specifically, we mandate establishment of a work group on permanent number portability, but decline to open a docket on that issue at present. Number portability is discussed at Issue IV(j) below.

CONTESTED ISSUES

Issue I: How will the application affect rates for local exchange telecommunications customers within and outside the competitive zone?

(a) What is the financial impact on LECs if the application is granted?

Positions of the Parties

Staff states that the AECs' entry will cause downward pressure on rates for the telecommunications services they offer, particularly to business customers. Staff argues that prices are also likely to decline as competition motivates the applicants and the incumbent LECs to develop more efficient, less costly methods of supplying telecommunications services. Staff argues that competition may also cause the LECs to seek rate rebalancing within and outside the competitive zones to bring rates more in line with the underlying economic costs of providing telecommunications services. A possible consequence of rebalancing is higher rates for high cost, rural service areas and for residential services generally.

If the applications are granted, Staff maintains that the LECs will lose customers and revenue. The extent of these losses in the Portland metropolitan area depends on a number of factors, including AEC market penetration; the expansion of telecommunications service markets as a result of competition and additional demand caused by price reductions; LEC cost savings from not serving customers lost to AECs; and terms and conditions established by the Commission for local competition (Issues IV a-k).

Staff acknowledges the arguments of the applicants and others, that potential LEC revenue losses may be offset by new revenues from expanded telecommunications services markets. However, Staff notes that no party provided a quantitative analysis of the potential financial impacts of market stimulation due to new entrants.

Regarding market stimulation due to reduced prices, Staff challenges comparisons between local exchange competition and competition in the interLATA toll market, where price reductions stimulated the market for long distance services. Staff argues that the local exchange and long distance markets are fundamentally different. Many of the price reductions in the interLATA toll markets resulted not from competition, but from regulatory decisions to shift LECs costs from toll and access services to local exchange services. Thus, the cost of access declined for IXCs.

Staff also maintains that market demand for local exchange services is less price elastic than demand for toll services. Estimates of price elasticity of demand for local exchange services are about -.05 to -.10. That is, a 10 percent decrease in price would increase market demand by only .5 to 1.0 percent. Toll, on the other hand, has a price elasticity in the range of -.36 to -.58; a 10 percent decrease in price would stimulate market demand by 3.6 to 5.8 percent. Finally, toll services are sold on a measured usage basis, whereas most local exchange service is sold on a flat rate basis. Thus, greater usage will increase IXC revenues but not LEC revenues from flat rate service. LEC revenues are increased by stimulating demand for more access lines.

To the extent that the LECs lose customers to the AECs, they may avoid certain costs associated with serving those customers. Staff argues that any potential cost savings due to the LECs' serving fewer customers would be consumed by increased advertising and marketing expenses and potential increases in depreciation expenses as LECs attempt to adjust to a more competitive environment.

Using ELI and MFS forecasts of local exchange customer and revenue growth in the Portland area in the next several years, Staff projected the AECs' penetration of the Portland metropolitan area business market. Based on these forecasts, Staff concluded that there is a reasonable possibility that the three applicants could attain a 20 percent penetration rate in that market by the year 2001.

Staff performed quantitative analyses to estimate the possible financial impacts of local competition on LEC revenues if the applications are granted. Staff assumed that the AECs would attain either a 10 percent or 20 percent share of the business market in the Portland metropolitan area by 2001. Staff believes that the 10 percent estimate is conservative.

For each of these scenarios Staff developed a mild and a severe case. In the mild case, for USWC, Staff assumed that:

- In addition to lost revenue from basic local exchange service and EAS, USWC will lose $20.77 per month in vertical service and ancillary revenues (toll, carrier access, miscellaneous) per business line lost and $17.19 per month in such revenues per residence line lost;
- USWC will experience an annual access line growth rate of four percent;
- USWC will reduce prices by 10 percent to its remaining business customers in the competitive zones;
- USWC price reductions in response to competition will stimulate demand for local exchange telecommunications services by a factor of -0.09

In the Staff's severe case, USWC is forced to reduce business rates in the competitive zones to total service long run incremental cost (TSLRIC). The table below shows USWC's revenue erosion per year and residential rate increase per month for the mild and severe case of each of Staff's scenarios:

USWC

Market Penetration	Case	Revenue Erosion (M/Yr.)	Residential Rate Increase/Mo.
10 percent	mild	$15.8	$1.23
10 percent	severe	$50.2	$3.92
20 percent	mild	$25.4	$1.98
20 percent	severe	$56.1	$4.39

Staff performed the same analyses for GTE, assuming loss of revenues from basic local exchange service and EAS, plus $27.30 per month in vertical service and ancillary revenues (toll, carrier access, miscellaneous) for each business line lost and $15.69 per month in revenues for each residence line lost. Staff made the same assumptions for GTE's severe case as it did for USWC. The following table shows Staff's projected revenue erosion and residential rate increase for GTE:

GTE

Market Penetration	Case	Revenue Erosion (M/Yr.)	Residential Rate Increase/Mo.
10 percent	mild	$11.5	$2.49
10 percent	severe	$36.4	$7.90
20 percent	mild	$18.6	$4.03
20 percent	severe	$40.8	$8.87

Staff believes that granting the applications carries the risk of significant adverse impacts on GTE and USWC. The projected revenue erosion could cause the LECs to seek rate rebalancing within and outside the competitive zones. Such rebalancing could

erode internal LEC revenue support for higher cost service areas and for residential services generally. Revenues available for sharing under USWC's existing Alternative Form of Regulation (AFOR)[1] plan could also decline.

USWC agrees with Staff. USWC emphasizes that the AECs will enter the urban business market, where services are overpriced relative to cost. Historically, regulatory pricing has kept business service rates, toll, and access charges much higher than residential rates. Competitive entry will force business rates down in the competitive zones and cause realignment of prices outside the zones, with significant impact on residential customers. Customers without a choice of carriers will be responsible for covering costs and making up for competitive losses as the incumbents' market share declines. Averaged rates, one of the traditional support mechanisms for affordable universal service, will come under severe pressure due to local exchange competition.

USWC foresees a significant financial impact on the LECs if the applications are granted, because the applicants will target those parts of USWC's market where revenues are most greatly concentrated. USWC prepared a confidential revenue impact analysis based on Staff's market penetration figures, using the same assumptions as Staff used, including the mild and severe cases. USWC anticipates that the AECs' market penetration will be even greater than Staff predicts, and that revenue losses will be even more severe. USWC bases its conclusion in part on its own experience in the United Kingdom.[2] USWC witness Inouye also testified that USWC had experienced a downward trend in its market share for private line and special access services in the competitive areas of Denver, Minneapolis, Seattle, and Portland.

GTE argues that the effect of competition on rates and LEC revenues will remain unknown until the Commission decides how GTE and USWC may price their services in docket UM 351. The effect of competition on rates and the LECs will also depend on which services the applicants offer and how those services are priced. It is reasonable to assume that prices within the competitive zones will eventually decline and that prices outside the zones will increase.

According to GTE, the financial impact of competitive entry on the LECs also depends on whether GTE and USWC are permitted to rebalance their rates in response to competition. In the main, however, GTE believes that Staff's analysis presents a

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[1] USWC's AFOR was approved by the Commission in Order No. 91-1598 in docket UT 80. In addition to revenue sharing, the AFOR provides USWC with downward and limited upward pricing flexibility for nonessential services. Essential services prices are not subject to change except for revenue neutral rate design changes authorized by the Commission. The AFOR expires on December 31, 1996.

[2] In the United Kingdom, USWC is a partner in a cable venture that provides telecommunications service in competition with British Telecom. According to the study, the cable partnership served 4 percent of residences and 10 percent of businesses in the relevant market in 1990. In 1992, the partnership served 18 percent of residences and 14 percent of businesses. In the first quarter of 1995, the partnership served 23 percent of residences; business figures were not available.

reasonable estimate of the magnitude of the impact of competition. Such an impact could materially affect residential service rates within and outside the zones and rates in general outside the competitive zones. GTE also asserts that rate restructuring costs will be incurred in order to gain the benefits of a more competitive market.

Applicants argue that local exchange customers are likely to see rate reductions and other benefits as a result of competitive entry. The applicants believe that the market for telecommunications services will expand with entry, and that loss of market share does not necessarily mean revenue loss for the incumbents.

The applicants argue that development of competition has been slow in other jurisdictions where alternative carriers are authorized to provide service and intercarrier arrangements are directed by the regulatory agency. The applicants maintain that incremental growth is the most likely scenario in Oregon as well. Even when it is relatively easy for consumers to change providers, as in the long distance market, experience has shown that change comes slowly. Moreover, networks take time to construct. Applicants note that it will also take time for the Commission to create the conditions for effective competition through costing, imputation, interconnection, unbundling, resale, number portability, collocation, and universal service policies.

The applicants contend that there is no basis to grant the incumbent LECs any immediate form of regulatory parity, such as rate rebalancing. The applicants state that AEC entry into the local exchange market will have little financial impact on the incumbent LECs and will not have a negative effect on residential rates within or outside the competitive zones. The applicants also contend that competition will cause the local exchange market to expand. Therefore, a decline in LEC market share does not necessarily mean a decline in LEC revenues or profits.

The applicants further contend that Staff estimates of market penetration and LEC financial impact are highly speculative and based on untested assumptions. Staff's market penetration figures are based on five year projections submitted by ELI and MFS, but Staff did not review the assumptions underlying these projections, such as the nature of intercompany compensation arrangements or the availability of unbundled loops or number portability. The applicants point out that Staff did not test its market penetration projections against the experience in other markets, such as the United Kingdom, New York, or Michigan, where local exchange competition has been introduced. Further, Staff did not compare its projections with experience in other market segments that have been opened to competition, such as long distance and competitive access provider services.

In addition, the applicants assert that there are other flaws in the Staff analysis. Staff assumes that 100 percent of local exchange market belongs to the incumbent LEC, so any revenues the applicants gain is necessarily the incumbents' loss. The applicants also argue that Staff did not take into account the potential market stimulation effect on access line growth and did not deal with offsetting factors like potential cost savings and

efficiencies realized by the incumbents. Finally, Staff did not include the revenue that incumbents would receive from unbundled network access channels if they were provided by LECs to AECs.

The applicants also challenge USWC's reliance on market penetration data from the United Kingdom to support the claim that AEC entry will have serious financial consequences for the LECs. According to the applicants, the record is silent on the market conditions in the United Kingdom at the time of the study. For instance, it is not known whether basic telecommunications service was bundled with cable service, or whether service was priced on a usage basis. The level of market penetration for basic service prior to competition is also unknown. Moreover, the United Kingdom data is limited to the percentage of homes that the USWC affiliate had marketed to; the overall market was much larger. The applicants point out that, after 5 years, overall market penetration was only 5 percent.

The applicants state that, even if the market penetration estimates made by Staff and USWC are accepted, the projected revenue impact of a 10 to 20 percent penetration, based on USWC's figures, is only 2.3 to 3.4 percent of USWC's Oregon revenue. The applicants argue that this level of revenue impact is insignificant.

OCTA and **Sprint** are aligned with the applicants. **AT&T** notes that competition will drive prices to incremental cost over time. Telecommunications customers throughout the state should eventually benefit, but competition will develop gradually. AT&T states that its experience with long distance competition will not be repeated at the local level. In the long distance market, AT&T's facilities could be efficiently duplicated by new entrants, all AT&T services were available for resale, and AT&T owned no bottleneck facilities that competitors needed to provide service. Those conditions are not present in the local exchange market.

AT&T points out that competition in the long distance market has increased its revenues despite lower prices and vastly decreased market share. AT&T argues that the LECs should experience similar circumstances. The LECs have greater pricing flexibility than AT&T had until 1988. Loss of market share may not mean significant revenue loss because the market is expanding. Moreover, competitive shifts should be gradual, so the Commission can monitor and take appropriate remedial action.

Commission Findings and Decision: Issue I

Competition in the switched local exchange market is new and untested. Few jurisdictions have paved the way for competition; even fewer have seen competition take hold. There is insufficient experience elsewhere to allow us to draw conclusions about the course of development in our own state. Even the parties admit that market penetration and revenue loss figures are speculative. There are far too many unknowns in this area to predict the future.

We acknowledge that the LECs may lose market share and, possibly, revenues as well. That could result in a rate increase for residential customers. Overall, however, we are convinced of the benefits of competition: increased customer choice, provider diversity, improved service quality and technical and service innovations. We therefore conclude that the benefit from granting the applications outweighs the potential detriments.

Effect on Rates. We do not believe that it is possible at present to quantify the effect of entry by the AECs on rates inside or outside the zone. We are convinced of two facts regarding the effect of competition on rates, however. First, the AECs will not make major inroads into LEC revenues overnight; they will develop their networks only gradually. Development of AEC networks depends on a number of factors that have yet to be determined, most critically the availability and price of unbundled loop elements. These issues will be addressed in docket UM 351. Even after the UM 351 order is entered, it will take time to negotiate interconnection agreements.

Second, business customers are the most likely to benefit from competition in the short term because the applicants will target those customers first. Business rates will likely decline, but we cannot quantify the level of decline at this point. We do not know how the LECs will price their services in response to initial competition or as a result of decisions in UM 351. Nor do we know how the applicants will price their services. Aside from price competition, carriers will also compete on the basis of service quality and product offerings.

Over the long term, if the conditions for effective competition are met, competition will drive prices closer to incremental cost. Since business services are priced well above cost, those rates should fall considerably. If the AECs also target residential customers, those rates will fall within the competitive zones as well. Because residential rates are priced closer to cost, however, competition for residential customers will develop more slowly than competition for business customers. Competition is unlikely to reduce residential rates significantly in the short term.

USWC, GTE, and Staff foresee a possible rebalancing of LEC rates within and outside the competitive zones due to lost LEC revenues. If the LECs lose revenues due to competition in the zones, there will be upward pressure on residential rates to offset the lost revenues. The need for rate rebalancing will depend on a variety of factors including the extent of market penetration by the AECs and their pattern of entry. It will also depend on the unbundling, interconnection, pricing, number portability, and access rules adopted here and in UM 351, as well as LEC responses to competitive initiatives.

Staff attempted to quantify the impact on residential rates for USWC and GTE, but did not assume any growth in the local telecommunications service market. We are not persuaded that the market for new lines will be price inelastic. The telecommunications market is changing in ways that cannot be predicted. In the developing environment, new technology may create unforeseen demand for new lines.

We also agree with MCImetro that businesses will use more lines if the price for access lines fell more than in Staff's analysis. Even without taking into account potential new services developed and offered by entrants, businesses might well switch from PBX to Centrex, or might add fax lines or dedicated computer modem lines. Moreover, reduced prices and competition in terms of service quality could well induce businesses to protect their information flows with redundant lines. Market growth could mitigate any LEC revenue loss due to competition and relieve the upward pressure on rates outside the zones.

Competition for high profit customers may cost the LECs some of the revenue that, as USWC claims, currently subsidizes service to less profitable residential customers. Although the LECs have an obligation to provide universal service, we have decided, in docket UM 731, that the AECs should also contribute to universal service support. Universal service issues are also addressed below under Issue IV(f).

Financial Impact on the LECs. It is probable that the AECs will, over time, capture a significant percentage of the local exchange market. The parties differ greatly in their estimates of AEC market penetration, however. Staff estimates a 10 to 20 percent penetration of the business market in the competitive zones by 2001. USWC argues that penetration will be on the high end of Staff's projections, with the greatest penetration in private line and special access services. These projections do not consider the possibility of a growing market for local exchange services. If competition stimulates the market, as we consider likely, the LECs could lose market share without losing revenues, similar to AT&T's experience in the long distance market.

Staff's projections do not consider the experience of competitors in other jurisdictions. In Washington State, for instance, new entrant market share is nearly zero. ELI and TCG Seattle have filed contracts with the Washington Commission to provide local exchange service to a total of 386 lines.[3] In New York City, where local competition has been in operation for the longest period of time, the highest reported nonBell competitor's share of access traffic is only 3 percent.

It is difficult to extrapolate from these data with any certainty. As noted, we are looking at a small number of jurisdictions. Moreover, we know little about the conditions unique to each area. In the United Kingdom study, for example, the applicants have pointed out many areas of uncertainty that prevent us from drawing any definite conclusions about how local exchange competition will develop in Oregon. Finally, we cannot reliably compare figures on the share of access traffic, which are usage based, with Staff's figures on market penetration, which are expressed in terms of

[3] Of the 386 lines, 144 are in Redmond, Washington and 242 are undisclosed. New entrant market share in Seattle is less than 0.05 percent, even if all 242 undisclosed lines are located in Seattle. Redmond is in GTE's service territory (Kirkland exchange), where GTE serves 112,000 access lines as of April 1995. New entrant market share there is between 0.13 and 0.3 percent.

customers (who may have many lines) or with the Washington data, which is based on number of access lines.

Before AEC market share is able to increase substantially, the AECs and LECs must negotiate interconnection agreements, the AECs must construct the parts of their network that they do not purchase or lease from the LECs, and the Commission must resolve outstanding issues relating to competition. These things will all take time. Even if the applicants garner the market share predicted by Staff, USWC will experience a revenue loss equal to 2.3 to 3.4 percent of its Oregon revenues, without taking into account market growth or avoided costs.

USWC witness Inouye argued that USWC experienced a downward trend in its market share for private line and special access services in the competitive areas of Denver, Minneapolis, Seattle, and Portland. That claim is part of USWC's argument that it will suffer serious revenue consequences from competitive entry. We have information to the contrary. We take official notice of an exhibit entered into evidence in UM 351, AT&T Confidential Exhibit 9.[4] Because the exhibit is confidential, we will disclose no specific figures. That exhibit demonstrates that USWC is losing market share to competitors in the high capacity telecommunications market in Portland, but that its revenues in that market are increasing due to overall market growth. Thus, the exhibit refutes USWC's claim that decline in market share necessarily entails revenue loss.

In view of these facts, we conclude that AEC entry into the local exchange market will not have a significant impact on the LECs in the near term. If competitive entry does significantly affect LEC revenue, the LECs may seek rate relief from the Commission, including interim relief. USWC may seek to have its AFOR plan modified if its equity return falls below the minimum level prescribed in the plan.[5] Finally, the Commission may rebalance LEC rates or take other appropriate action if warranted.

Aside from the revenue impacts associated with competitive entry, the LECs also face the issue of whether competition will create stranded plant, and, if so, whether it should be recovered from the LEC monopoly customers. Commission treatment of stranded investment, if it occurs, may have a significant impact on the LECs' financial health. That issue is beyond the scope of this docket, but will have to be considered in the future. The Commission has opened docket UM 731 to consider the proper recovery of USWC plant.

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[4] Pursuant to OAR 860-14-050(2), when the Commission takes official notice, a party may object to the fact noticed within 15 days of notification. The objecting party may explain or rebut the noticed fact.

[5] Under its AFOR plan, USWC may earn a return on equity between 8.53 and 18.53 percent. USWC may seek modification or termination of the AFOR if its equity return falls below 8.53 percent. Order No. 91-1598 at 19.

Issue II: How will the applications affect competition within the local exchange service area?

(a) Will the applicants' proposed service stimulate competition?
(b) How will local exchange providers respond to the presence of competitive local service providers?

Positions of the Parties

Staff distinguishes between competition from facilities based carriers and competition from resellers. Facilities based carriers are those who, like the applicants, own their own switches and at least some loop components. Staff asserts that facilities based competition will provide customers in the competitive zones with more choices, and new approaches to configuring service offerings. Competition may also stimulate innovation, which will benefit immediate users of the services and ultimately all telecommunications users by providing greater access to more efficient technology. Competitive entry will also motivate the LECs to lower prices and improve efficiency for services comparable to those offered by applicants.

USWC expects that competitive entry will stimulate competition by offering alternatives to some customers. If properly regulated, competition will eventually produce lower prices, more choices, more innovation, and improved service quality. The applicants' facilities will allow them to compete not only for new customers, but also for USWC's existing market share. USWC intends to use the pricing flexibility under its existing AFOR and the competitive zone law to respond to competition. USWC will also develop new pricing options and increase advertising, marketing, and sales activities.

GTE contends that granting the applications will expand competition in the target areas. Even in the best case, however, competition would be "monopolistic," with multiple providers offering essentially the same services and competing through advertising and service packaging. The deployment of new technologies and new services would become more market driven.

GTE asserts that the Commission should not attempt to manufacture competition. The applicants seek significant levels of aid and support from the incumbent LECs, usually at incremental cost. The type and magnitude of market intervention these requests would entail is contrary to the notion of replacing a regulated monopoly system with a competitive market approach. If technological and economic developments have made state sanctioned monopolies obsolete, GTE believes that the market should develop on its own. If there are areas where telecommunications is a still natural monopoly, then the rationale for the current regulatory system still exists.

Applicants and **AT&T** believe that entry will stimulate competition, but stress that effective competition will not develop overnight or on its own. The development of competition depends on how the Commission resolves key policy issues in this and

related dockets. The applicants argue that they need an appropriate economic costing analysis, a proper imputation test, a fair local interconnection policy, immediate unbundling, and true equal access. They also stress the importance of the Commission's collocation and resale policies for the development of competition.

If the applications are granted, the applicants assert that AECs will stimulate competition by providing better, more reliable service quality than the LECs. Competition on the basis of service quality has been a key factor in the success new entrants have experienced competing with incumbent LECs for nonswitched services.

The applicants argue that, if the Commission creates the right incentives, local exchange carriers should respond to competition by reducing costs and becoming more efficient. If LECs are not allowed to pass costs to other customers, the incumbents will have to become more efficient and more responsive to customers needs. The Commission should also not permit the LECs to recover their common costs from the AECs in the price of the interconnection elements. The full benefits of competition will be realized only if all costs of the incumbents are subjected to market pressures for greater efficiency. Finally, the applicants note that the LECs will also have to upgrade their networks and increase the quality and variety of their services in response to competition.

Sprint believes that local competition will create new market opportunities for both entrants and the incumbent LECs to expand their service territories and the range of service offerings, both of which create an opportunity to increase their revenue and earnings. According to Sprint, competition in the interexchange market has shown that an incumbent will respond to new market conditions by developing new services and reducing costs. How incumbent LECs respond to new entrants in the local market will depend on how they are regulated. If a LEC cannot pass costs on to its customers and still retain most of those customers, the LEC will have to become more efficient and responsive to its customers.

OCTA argues that competition offers improved service and greater access to diverse facilities that could enhance network reliability.

Commission Findings and Decision: Issue II

Our decision to approve these applications to provide competitive local exchange service is just the beginning in a long process. Over time, AEC entry will increase the quality and choice of service and decrease price for telecommunications customers. Competitive entry will also promote deployment of new technology and to foster innovation. In the long term, the benefits from new technology and innovation will flow to all users. In the short term, the main beneficiaries are likely to be business customers. The incumbents will likely respond to competition by lowering prices and creating new service packages. They will also have to improve the quality of their service.

GTE argues that local exchange competition will be limited to providers that offer the same services and compete through advertising and service packaging. We do not believe this will be the case. Even if it were, however, it is an initial stage in the development of competition. Having a choice of providers and service packages is a significant benefit to telelcommunications customers.

The development of competition depends, as several parties have noted, on appropriate conditions being established by the Commission. These conditions include elimination of entry restrictions, equal access to rights of way, local number portability, dialing parity, unbundling the monopoly local exchange network, comprehensive interconnection, cost based pricing by the incumbent, imputation, elimination of resale restrictions, and open technical standards. Not all of these matters are addressed in these dockets, but must be considered as we move forward in a competitive environment.

Issue III: How will the application affect access by customers to high quality, innovative telecommunications service in the local exchange service area?

(a) What new or improved services will be offered by the applicants or the LECs?

(b) Will the applicants' application affect the quality of service offered by the LECs?

(c) What effect will the application have on economic efficiency?

Positions of the Parties

Applicants point out that, initially, their service offerings will approximate the services provided by the LECs. Competition is likely to hasten the introduction of new services, however. In other telecommunications markets, new and improved services have been offered over time, many of which could not have been predicted when the markets were first opened to competition.

New services are likely to result from deployment of existing technology as well as from technological development. MFS points out that much of the technology deployed by competitive providers, especially the use of fiber optics, had been available for years, yet without any significant deployment until competitive access providers entered various metropolitan markets throughout the country. Companies can also innovate by providing better service: quicker response times, redundant capacity, creative billing solutions, and customer options. The LECs will be forced to meet any service innovations that the AECs develop in order to remain competitive.

The frequency of LEC service quality problems suggests that the presence of AECs will encourage the LECs to upgrade their service as well as to introduce efficiencies. Customers may be unwilling to switch providers without a significant price differential unless the LEC product is disappointing. Poor service could seriously harm the incumbents. Thus competition will have a positive effect on LEC service quality.

The applicants also argue that competitive entry will improve economic efficiency in general. As markets move toward effective competition, prices will be driven closer to the cost of the most efficient service provider, improving static economic efficiency. Moreover, the competitive process will speed the deployment of new and better technologies in the most efficient way, improving dynamic efficiency of telecommunications. Competition will also increase the inflow of telecommunications capital into Oregon on the part of the incumbents and new entrants, which will benefit the economy of the state as a whole.

Finally, the applicants note that networks have properties that magnify as they are interconnected. Because information is a leading sector in the United States economy, an increase in the number of networks available to transfer information can lead to potentially greater economic gains than would increased competition in other sectors.

The applicants challenge the LECs' assumption that competition will result in decreased economies of scale and scope. According to MCImetro witness Dr. Nina Cornell, USWC cost studies do not reveal such economies except for the NAC. Moreover, the theoretical benefits of such economies do not matter unless they are passed on to the consumer in the form of lower prices, because the incumbent monopoly firm is inefficient and there is no competitive market incentive to keep costs in check.

The applicants contend that Staff ignores dynamic efficiency. Staff does not account for possible market stimulation from the greatly reduced prices it forecasts; nor does Staff acknowledge that it is possible for competitors to bring new services and new technologies to consumers more quickly and efficiently than the LECs have been willing to do. **Sprint** concurs with the arguments made by the applicants.

AT&T argues that competition will allow consumers to benefit from innovation because it ensures the ascendancy of the technology with the best service attributes and quality at the best prices. At present, monopoly providers decide what services will be offered in the local market. With effective competition, consumers will decide.

According to AT&T, evidence from the interLATA market also demonstrates that market forces drive application of the best available technology. Sprint's aggressive entry into the long distance market caused AT&T to accelerate deployment of fiber technology and improve its methods of informing customers about its fiber network. In the telephone equipment market, the black rotary dial instrument has given way to portable phones, answering machines, and fax machines, automatic redial, and a host of other features and functions.

Staff also argues that competitive entry will encourage the LECs to deploy newer technologies like optical fiber more rapidly in the competitive zones. Competition should also encourage LECs and applicants to invest in research, because any sustainable competitive advantage will come through innovation. Where profitable, the

benefits of competition could be available to customers outside the competitive zones as well. But if applicants merely resell the incumbent LECs' services and do not build their own facilities, it will exacerbate LEC bottlenecks and hinder customer access to telecommunications services.

GTE states that moving to a market based system will necessarily change investment and service dynamics. Granting the applications will affect service provided inside and outside the competitive zones. According to GTE, the LECs will likely invest on a more deaveraged basis if the applications are granted. They will deploy new technologies in the competitive zones. Without contribution from the more lucrative urban areas, investments outside the zones would be based on the ability of those markets to generate revenue to cover the cost of and return on investments. Consequently, the implementation of a sound universal service support program will be crucial for investment dynamics.

As to whether competition will result in new or improved telecommunications services, GTE argues that the introduction of truly new services is driven by manufacturers' technological developments. New technology is available to GTE, USWC, and the applicants alike.

GTE believes that competition can result in improved quality and in selective quality reductions. Rivals will compete for some customers based on meeting high levels of performance and service quality. However, the competitive market should also accommodate those customers who will accept somewhat lower performance parameters in exchange for lower prices. If the applications are granted, GTE argues that all firms in competitive zones should be subject to the same minimal level of service regulation by the Commission, but the Commission should retain oversight of certain critical services such as 911.

According to GTE, the effect of entry on economic efficiency will be mixed. GTE and USWC have constructed ubiquitous networks with nonduplicative facilities. Granting the applications will result in duplicate, overlapping construction. The total cost of providing local exchange service in the state will increase. Moreover, replacing a regulated monopoly system with a competitive market system will increase the riskiness of investment in telecommunications utilities. That, in turn, will increase the utilities' revenue requirement by increasing the return demanded by investors. GTE states that if a change in paradigm from regulation to competition is to produce any real economic efficiency gains, competition must develop naturally, so firms are free to respond to each other's actions. GTE urges that there should be no government compulsion in the market.

Commission Findings and Decision: Issue III

In the near term, the applicants are not proposing the use of any technology not already in place or planned by LECs, especially in the Portland metropolitan area. When

markets first open to entry, the initial offerings are usually similar to those already available; that will likely be the case here. As competition takes hold, incumbents and new entrants will likely compete on the basis of customer service. By their very presence in the market, AECs will provide customers with enhanced operational and strategic security, by serving as redundant carriers. The fact that customers will have a choice of service provider is also new. At the very least, competition should improve the quality of service and enhance economic efficiency of all participants in the local exchange market.

In the long term, competition should promote new products, innovation, and the deployment of existing technologies not yet in widespread use. ELI currently plans to offer intraLATA equal access and physical collocation, in addition to the services currently provided by the incumbents. MFS plans to offer the services offered by the incumbents as well as credit card calling, conference calling, voice mail, and E-mail, and specialized customer services. Other new services may depend on technological change, which is difficult to predict.

In a competitive environment, the LECs will be forced to increase the variety of their services. Competition will stimulate the LECs to provide new services, either in response to AEC service innovations or on their own, in order to generate new revenues. Effective competition will accelerate the rate of innovation, for both new entrants and the incumbent local exchange carriers alike. In response to competitive pressures, USWC, for example, has announced plans to develop a broadband network capable of offering customers multimedia services and ATM and frame relay based services.

Competitive pressure will provide service quality standards that are customer driven and market driven, and not dependent on regulatory monitoring. Because customers will have a choice of providers under a competitive regime, incumbent LECs will have to improve the service quality as well, in order to retain customers and market share. Service outages, repair delays, and delays in service connections become costly for the incumbents when customers can express dissatisfaction by changing carriers.

GTE points out that while competition will make high levels of service quality available, some customers might choose a lower level of quality or performance in return for a lower price. If the lower service quality/lower price option is chosen by informed consumers, the Commission has no objection to such a tradeoff.

"Economic efficiency" includes both allocative efficiency and technical or productive efficiency. Allocative efficiency refers to the situation in which prices act as appropriate signals for decisions that consumers and firms make. The signals allow consumers to purchase the appropriate amounts and kind of goods and services. Over time, competition will enhance allocative efficiency by pushing prices closer to the costs of providing a particular service.